

IN THE SPECIFICATION

Please replace the paragraph beginning at page 10, line 22, with the following rewritten paragraph:

A specific embodiment of the present invention is an electron source (BaO/W emitter) wherein a covering layer of barium and oxygen is formed on a needle of tungsten or molybdenum single crystal having <100> orientation or <210> <211> orientation, which is obtained by forming, as a barium-supply source, a complex oxide comprising barium oxide and an oxide of metal other than barium, at one portion of the single crystal needle. The metal element other than barium in the complex oxide containing an oxide of metal other than barium, may preferably be at least one metal element selected from the group consisting of Group IIIA (boron, aluminum, gallium, indium and thallium), Group IVB (titanium, zirconium and hafnium) and Group IIIB (scandium, yttrium, lanthanide elements and actinoid elements) of the periodic table (short period type). The above complex oxide is particularly preferably at least one complex oxide selected from the group consisting of BaAl₂O₄, BaAl₁₂O₁₉, Ba₃Sc₄O₉, BaSc₂O₄, BaTiO₃, BaZrO₃ and BaHfO₃.